

FEB 20 2001

PATENT & TRADEMARK OFFICE

INFORMATION DISCLOSURE
CITATION

PTO-1449

ATTY. DOCKET NO.
A-67851-2/DJB/RMS/DCFSERIAL NO.
09/513,362APPLICANT
CHEE et al.FILING DATE
February 25, 2000GROUP
~~1643~~ 1656

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS		PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
TS ✓	1	4,822,746	4/1989	Walt	—	—	
✓	2	5,002,867	3/1991	Macevicz	—	—	
✓	3	5,114,864	5/1992	Walt	—	—	
✓	4	5,105,305	4/1992	Betzig et al.	—	—	
✓	5	5,143,853	9/1992	Walt	—	—	
✓	6	5,028,545	7/1991	Soini	—	—	
✓	7	5,244,636	9/1993	Walt et al.	—	—	
✓	8	5,244,813	9/1993	Walt et al.	—	—	
✓	9	5,250,264	10/1993	Walt et al.	—	—	
✓	10	5,252,494	10/1993	Walt	—	—	
✓	11	5,254,477	10/1993	Walt	—	—	
✓	12	5,298,741	3/1994	Walt et al.	—	—	
✓	13	5,320,814	6/1994	Walt et al.	—	—	
✓	14	5,496,997	3/1996	Pope	—	—	
✓	15	5,512,490	4/1996	Walt et al.	—	—	
✓	16	5,573,909	11/1996	Singer et al.	—	—	
✓	17	5,633,972	5/1997	Walt et al.	—	—	
✓	18	4,499,052	2/1985	Fulwyler	—	—	
✓	19	5,690,894	11/1997	Pinkel et al.	—	—	
✓	20	5,194,300	3/1993	Cheung	—	—	
TS ✓	21	5,132,242	7/1992	Cheung	—	—	

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TS ✓	22	4,200,110	4/1980	Peterson et al.			
✓	23	4,824,789	4/1989	Yafuso et al.			
✓	24	4,682,895	7/1987	Costello			
✓	25	4,785,814	11/1988	Kane			
✓	26	5,518,883	5/1996	Soini			
✓	27	4,999,306	3/1991	Yafuso et al.			
✓	28	5,302,509	4/1994	Cheeseman			
✓	29	5,357,590	10/1994	Auracher			
✓	30	5,435,724	7/1995	Goodman et al.			
✓	31	5,481,629	1/1996	Tabuchi			
✓	32	5,575,849	11/1996	Honda et al.			
✓	33	5,639,603	6/1997	Dower et al.			
✓	34	5,656,241	8/1997	Seifert et al.			
✓	35	5,814,524	10/1998	Walt			
✓	36	5,863,708	1/1999	Zanzucchi et al.			
TS ✓	37	6,023,540	2/2000	Walt et al.			

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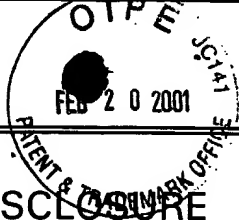
EXAMINER'S INITIALS		PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
TS ✓	38	5,494,798	2/1996	Gerdt et al.	_____	_____	
✓	39	5,565,324	10/1996	Still et al.	_____	_____	
✓	40	5,516,635	5/1996	Ekins et al.	_____	_____	
✓	41	5,900,481	5/1999	Lough et al.	_____	_____	
✓	42	5,888,723	3/1999	Sutton et al.	_____	_____	
✓	43	5,380,489	1/1995	Sutton et al.	_____	_____	
✓	44	5,840,256	11/1998	Demers et al.	_____	_____	
TS ✓	45	5,854,684	12/1998	Stabile et al.	_____	_____	

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS		PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							Yes	No
TS ✓	46	0 478 319	4/1992	EP	_____	_____		
✓	47	0 269 764	6/1988	EP	_____	_____		
✓	48	93/02360	2/1993	PCT	_____	_____		
✓	49	89/11101	11/1989	PCT	_____	_____		
✓	50	97/14028	4/1997	PCT	_____	_____		
✓	51	0 723 146	7/1996	EP	_____	_____		
✓	52	98/40726	9/1998	PCT	_____	_____		
✓	53	0 392 546	10/1990	EP	_____	_____		
✓	54	98/53093	11/1998	PCT	_____	_____		
✓	55	97/40385	10/1997	PCT	_____	_____		
✓	56	98/53300	11/1998	PCT	_____	_____		
✓	57	96/03212	2/1996	PCT	_____	_____		
TS ✓	58	99/60170	11/1999	PCT	_____	_____		

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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
TS ✓	59	97/14928	4/1997	PCT			
✓	60	98/50782	11/1998	PCT			
✓	61	99/18434	4/1999	PCT			
✓	62	00/04372	1/2000	PCT			
TS ✓	63	99/67414	12/1999	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TS ✓	64	Ferguson et al., "A Fiber-Optic DNA Biosensor Microarray for the Analysis of Gene Expression," Nature Biotechnology, 14:1681-1684 (1996).
✓	65	Healey et al., "Improved Fiber-Optic Chemical Sensor for Penicillin," Anal. Chem. 67(24):4471-4476 (1995).
✓	66	Healey et al., "Development of a Penicillin Biosensor Using a Single Optical Imaging Fiber," SPIE Proc. 2388:568-573 (1995).
✓	67	Michael et al., "Making Sensors out of Disarray: Optical Sensor Microarrays," Proc. SPIE, 3270: 34-41 (1998).
✓	68	Michael et al., "Randomly Ordered Addressable High-Density Optical Sensor Arrays," Anal. Chem. 70(7): 1242-1248 (April 1998).
✓	69	Michael et al., "Fabrication of Micro- and Nanostructures Using Optical Imaging Fibers and there Use as Chemical Sensors," Proc. 3rd Intl. Symp., Microstructures and Microfabricated Systems, ed. P.J. Hesketh, et al., v. 97-5, Electrochem. Soc., 152-157 (Aug. 1997).
✓	70	Pantano et al., "Ordered Nanowell Arrays," Chem. Mater., 8(12): 2832-2835 (1996).
✓	71	Walt, "Fiber-Optic Sensors for Continuous Clinical Monitoring," Proc. IEEE, 80(6): 903-911 (1992).
✓	72	Anonymous, "Fluorescent Microspheres," Tech. Note 19, Bangs Laboratories, (Fishers, In) February 1997.
✓	73	Anonymous, "Microsphere Selection Guide," Bangs Laboratories, (Fisher, In) September 1998.
✓	74	Bangs, L.B., "Immunological Applications of Microspheres," The Latex Course, Bangs Laboratories (Carmel, IN) April 1996.
✓	75	Peterson, J. et al., "Fiber Optic pH Probe for Physiological Use," Anal. Chem., 52:864-869 (1980).
TS		

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TS ✓	76	Pope, E. "Fiber Optic Chemical Microsensors Employing Optically Active Silica Microspheres," SPIE, 2388:245-256 (1995).
✓	77	Strachan et al., "A Rapid General Method for the Identification of PCR Products Using a Fibre-Optic Biosensor and its Application to the Detection of Listeria," Letters in Applied Microbiology, 21:5-9 (1995).
✓	78	Abel et al., "Fiber-Optic Evanescent Wave Biosensor for the Detection of Oligonucleotides," Anal. Chem. 68:2905-2912 (1996).
✓	79	Piunno et al., "Fiber-Optic DNA Sensor for Fluorometric Nucleic Acid Determination," Anal. Chem., 67:2635-2643 (1995).
✓	80	Drmanac, R. et al., "Sequencing by Oligonucleotide Hybridization: A Promising Framework in Decoding of the Genome Program," The First International Conference on Electrophoresis, Supercomputing and the Human Genome, Proceeding of the April 10-13, 1990 Conference at Florida State University. Ed. C. Cantor and H. Lim.
✓	81	Drmanac, R. et al., "Prospects for a Miniaturized, Simplified and Frugal Human Genome Project," Scientia Yugoslavica, 16(1-2):97-107 (1990).
✓	82	Drmanac, R. et al., "Sequencing by Hybridization (SBH) with Oligonucleotide Probes as an Integral Approach for the Analysis of Complex Genomes," International Journal of Genome Research, 1(1):59-79 (1992).
✓	83	Drmanac, R. et al., "Sequencing by Hybridization," Automated DNA Sequencing and Analysis, ed. M. Adams, C. Fields and J. Venter. (1994).
✓	84	Barnard et al., "A Fibre-Optic Chemical Sensor with Discrete Sensing Sites," Nature, 353:338-340 (September 1991).
✓	85	Fuh et al., "Single Fibre Optic Fluorescence pH Probe," Analyst, 112:1159-1163 (1987).
✓	86	Magnani et al., "In-Vivo Biomedical Monitoring by Fiber-Optic Systems," Journal of Lightwave Technology, 13(7):1396-1406 (1995).
✓	87	Healey et al., "Fiberoptic DNA Sensor Array Capable of Detecting Point Mutations," Analytical Biochemistry, 251:270-279 (1997).
✓	88	Hirschfeld et al., "Laser-Fiber-Optic 'Optrode' for Real Time In Vivo Blood Carbon Dioxide Level Monitoring," Journal of Lightwave Technology, LT-5(7):1027-1033 (1987).
✓	89	Peterson et al., "Fiber-Optic Sensors for Biomedical Applications," Science, 13:123-127 (1984).
✓	90	Czarnik, "Illuminating the SNP genomic code," Modern Drug Discovery, 1(2):49-55 (1998).
✓	91	Walt, "Fiber Optic Imaging Sensors," Acc. Chem. Res. 31(5):267-278 (1998).
✓	92	Chen et al., "A Microsphere-Based Assay for Multiplexed Single Nucleotide Polymorphism Analysis Using Single Base Chain Extension," Genome Research, 10(4):549-557 (2000).
TS ✓	93	Iannone et al., "Multiplexed Single Nucleotide Polymorphism Genotyping by Oligonucleotide Ligation and Flow Cytometry," Cytometry, 39:131-140 (2000).

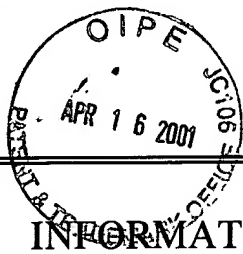
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U.S. PATENT DOCUMENTS

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TS	1	5,474,895	12/1995	Ishii et al.	—	—	
TS	2	5,679,524	10/1997	Nikiforov et al.	—	—	

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS		PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							Yes	No
TS	3	99/67641	12/1999	WO	—	—		
	4	00/39587	7/2000	WO	—	—		
	5	00/47996	8/2000	WO	—	—		
	6	00/63437	10/2000	WO	—	—		
	7	00/71243	11/2000	WO	—	—		
	8	00/71995	11/2000	WO	—	—		
TS	9	00/75373	12/2000	WO	—	—		

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TS	10	Shoemaker et al., "Quantitative phenotypic analysis of yeast deletion mutants using a highly parallel molecular bar-coding strategy," Nature Genetics, 14:450-456 (1996).					
TS	11	Lyamichev et al., "Polymorphism identification and quantitative detection of genomic DNA by invasive cleavage of oligonucleotide probes," Nature Biotechnology, 17:292-296 (1999).					

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DATE CONSIDERED 8/30/01

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PTO/SB/8A (08-00)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Application Number	09/513,362
Filing Date	February 25, 2000
First Named Inventor	Chee et al.
Group Art Unit	1656
Examiner Name	STRZELECKA
Attorney Docket Number	A-67851-2/DJB/RMS/DCF

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U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
TS —	1	5,830,711		Barany et al.	11/1998	
—	2	5,856,083		Chelsky et al.	01/1999	
—	3	5,858,732		Solomon et al.	01/1999	
—	4	6,013,456		Akhavan-Tafti	01/2000	
—	5	6,027,889		Barany et al.	02/2000	
—	6	6,054,564		Barany et al.	04/2000	
—	7	6,110,678		Weisburg et al.	08/2000	
—	8	6,172,218	B1	Brenner	01/2001	
—	9	6,251,639	B1	Kurn	06/2001	
—	10	6,268,148		Barany et al.	07/2001	
—	11	5,854,033		Lizardi	12/1998	
—	12	5,554,516		Kacian et al.	09/1996	
—	13	5,541,311		Dahlberg et al.	07/1996	
TS —	14	5,660,988		Duck et al.	08/1997	

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		Office ³	Number ⁴	Kind Code ² (if known)				
TS —	15	WO	93/25563	A1	City of Hope	12/1993		
—	16	WO	97/31256	A3	Cornell Research Foundation	08/1997		
—	17	WO	00/58516	A2	Whitehead Institute for Biomedical Research	10/2000		
—	18	WO	00/13004	A3	Trustees of Tufts College	03/2000		
—	19	WO	00/16101	A2	Trustees of Tufts College	03/2000		
TS —	20	WO	00/48000	A1	Illumina Inc.	09/2000		

Examiner Signature	Teresa Strzelecka	Date Considered	09/05/01
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